The Texas Natural Resource Conservation Commission (commission) proposes amendments to §114.6, Low Emission Fuel Definitions; §114.312, Low Emission Diesel Standards; §114.313, Designated Alternate Limits; §114.314, Registration of Diesel Producers and Importers; §114.315, Approved Test Methods; §114.316, Monitoring, Recordkeeping, and Reporting Requirements; §114.317, Exemptions to Low Emission Diesel Requirements; and §114.319, Affected Counties and Compliance Dates. The commission proposes these amendments to Chapter 114, Control of Air Pollution From Motor Vehicles, and corresponding revisions to the state implementation plan (SIP) in order to control ground-level ozone in the Houston/Galveston (HGA), Dallas/Fort Worth (DFW), and Beaumont/Port Arthur (BPA) ozone nonattainment areas.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE PROPOSED RULES

The HGA ozone nonattainment area is classified as Severe-17 under the Federal Clean Air Act (FCAA) Amendments of 1990 (42 United States Code (USC), §§7401 et seq.), and therefore is required to attain the one-hour ozone standard of 0.12 parts per million (ppm) by November 15, 2007. The HGA area, defined by Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties, has been working to develop a demonstration of attainment in accordance with 42 USC, §7410. On January 4, 1995, the state submitted the first of its Post-1996 SIP revisions for HGA.

The January 1995 SIP consisted of urban airshed model (UAM) modeling for 1988 and 1990 base-case episodes, adopted rules to achieve a 9% rate-of-progress (ROP) reduction in volatile organic compounds (VOC), and a commitment schedule for the remaining ROP and attainment demonstration elements. At the same time, but in a separate action, the State of Texas filed for the temporary nitrogen

oxide (NO_x) waiver allowed by 42 USC, §7511a(f). The January 1995 SIP and the NO_x waiver were based on early base-case episodes which marginally exhibited model performance in accordance with the United States Environmental Protection Agency (EPA) modeling performance standards, but which had a limited data set as inputs to the model. In 1993 and 1994, the commission was engaged in an intensive data-gathering exercise known as the COAST study. The state believed that the enhanced emissions inventory, expanded ambient air quality and meteorological monitoring, and other elements would provide a more robust data set for modeling and other analysis, which would lead to modeling results that the commission could use to better understand the nature of the ozone air quality problem in the HGA area.

Around the same time as the 1995 submittal, the EPA policy regarding SIP elements and timelines went through changes. Two national programs in particular resulted in changing deadlines and requirements. The first of these programs was the Ozone Transport Assessment Group. This group grew out of a March 2, 1995 memo from Mary Nichols, former EPA Assistant Administrator for Air and Radiation, that allowed states to postpone completion of their attainment demonstrations until an assessment of the role of transported ozone and precursors had been completed for the eastern half of the nation, including the eastern portion of Texas. Texas participated in this study, and it has been concluded that Texas does not significantly contribute to ozone exceedances in the Northeastern United States. The other major national initiative that has impacted the SIP planning process is the revisions to the national ambient air quality standard (NAAQS) for ozone. The EPA promulgated a final rule on July 18, 1997 changing the ozone standard to an eight-hour standard of 0.08 ppm. In November 1996, concurrent with the proposal of the standards, the EPA proposed an interim implementation plan (IIP) that it

believed would help areas like HGA transition from the old to the new standard. In an attempt to avoid a significant delay in planning activities, Texas began to follow this guidance, and readjusted its modeling and SIP development timelines accordingly. When the new standard was published, the EPA decided not to publish the IIP, and instead stated that, for areas currently exceeding the one-hour ozone standard, that standard would continue to apply until it is attained. The FCAA requires that HGA attain the standard by November 15, 2007.

The EPA issued revised draft guidance for areas such as HGA that do not attain the one-hour ozone standard. The commission adopted on May 6, 1998 and submitted to the EPA on May 19, 1998 a revision to the HGA SIP which contained the following elements in response to EPA's guidance: UAM modeling based on emissions projected from a 1993 baseline out to the 2007 attainment date; an estimate of the level of VOC and NO_x reductions necessary to achieve the one-hour ozone standard by 2007; a list of control strategies that the state could implement to attain the one-hour ozone standard; a schedule for completing the other required elements of the attainment demonstration; a revision to the Post-1996 9% ROP SIP that remedied a deficiency that the EPA believed made the previous version of that SIP unapprovable; and evidence that all measures and regulations required by Subpart 2 of Title I of the FCAA to control ozone and its precursors have been adopted and implemented, or are on an expeditious schedule to be adopted and implemented.

In November 1998, the SIP revision submitted to the EPA in May 1998 became complete by operation of law. However, the EPA stated that it could not approve the SIP until specific control strategies were modeled in the attainment demonstration. The EPA specified a submittal date of November 15, 1999

for this modeling. In a letter to the EPA dated January 5, 1999, the state committed to model two strategies showing attainment.

As the HGA modeling protocol evolved, the state eventually selected and modeled seven basic modeling scenarios. As part of this process, a group of HGA stakeholders worked closely with commission staff to identify local control strategies for the modeling. Some of the scenarios for which the stakeholders requested evaluation included options such as California-type fuel and vehicle programs as well as an acceleration simulation mode equivalent motor vehicle inspection and maintenance program. Other scenarios incorporated the estimated reductions in emissions that were expected to be achieved throughout the modeling domain as a result of the implementation of several voluntary and mandatory statewide programs adopted or planned independently of the SIP. It should be made clear that the commission did not propose that any of these strategies be included in the ultimate control strategy submitted to the EPA in 2000. The need for and effectiveness of any controls which may be implemented outside the HGA eight-county area will be evaluated on a county-by-county basis.

The SIP revision was adopted by the commission on October 27, 1999, submitted to the EPA by November 15, 1999, and contained the following elements: photochemical modeling of potential specific control strategies for attainment of the one-hour ozone standard in the HGA area by the attainment date of November 15, 2007; an analysis of seven specific modeling scenarios reflecting various combinations of federal, state, and local controls in HGA (additional scenarios H1 and H2 build upon Scenario VIf); identification of the level of reductions of VOC and NO_x necessary to attain the one-hour ozone standard by 2007; a 2007 mobile source budget for transportation conformity;

identification of specific source categories which, if controlled, could result in sufficient VOC and/or NO_x reductions to attain the standard; a schedule committing to submit by April 2000 an enforceable commitment to conduct a mid-course review; and a schedule committing to submit modeling and adopted rules in support of the attainment demonstration by December 2000.

The April 19, 2000 SIP revision for HGA contained the following enforceable commitments by the state: to quantify the shortfall of NO_x reductions needed for attainment; to list and quantify potential control measures to meet the shortfall of NO_x reductions needed for attainment; to adopt the majority of the necessary rules for the HGA attainment demonstration by December 31, 2000, and to adopt the rest of the shortfall rules as expeditiously as practical, but no later than July 31, 2001; to submit a Post-99 ROP plan by December 31, 2000; to perform a mid-course review by May 1, 2004; and to perform modeling of mobile source emissions using the EPA mobile source emissions model (MOBILE6), to revise the on-road mobile source budget as needed, and to submit the revised budget within 24 months of the model's release. In addition, if a conformity analysis is to be performed between 12 months and 24 months after the MOBILE6 release, the state will revise the motor vehicle emissions budget (MVEB) so that the conformity analysis and the SIP MVEB are calculated on the same basis.

In order for the state to have an approvable attainment demonstration, EPA has indicated that the state must adopt those strategies modeled in the November submittal and then adopt sufficient controls to close the remaining gap in NO_x emissions. The modeling included in this proposal indicates a gap of an additional 77.98 tons per day (tpd) of NO_x reductions is necessary for an approvable attainment demonstration.

The emission reduction requirements included as part of this SIP revision represent substantial, intensive efforts on the part of stakeholder coalitions in the HGA area. These coalitions, involving local governmental entities, elected officials, environmental groups, industry, consultants, and the public, as well as the commission and the EPA, have worked diligently to identify and quantify potential control strategy measures for the HGA attainment demonstration. Local officials from the HGA area have formally submitted a resolution to the commission, requesting the inclusion of many specific emission reduction strategies.

The current SIP revision contains rules, enforceable commitments, and photochemical modeling analyses in support of the HGA ozone attainment demonstration. In addition, this SIP contains Post-1999 ROP plans for the milestone years 2002 and 2005, and for the attainment year 2007. The SIP also contains enforceable commitments to implement further measures, if needed, in support of the HGA attainment demonstration, as well as a commitment to perform and submit a mid-course review.

The HGA ozone nonattainment area will need to ultimately reduce NO_x more than 750 tpd to reach attainment with the one-hour standard. In addition, a VOC reduction of about 25% will have to be achieved. Adoption of the Low Emission Diesel Fuel (LED) program will contribute to attainment and maintenance of the one-hour ozone standard in the HGA area. A LED program also should contribute to a successful demonstration of transportation conformity in the HGA area.

These proposed rules are one element of the control strategy for the HGA Attainment Demonstration SIP. The purpose of these proposed rules is to establish a LED air pollution control strategy that

reduces NO_x emissions necessary for the HGA nonattainment area to be able to demonstrate attainment with the ozone NAAQS. Additional benefits will be achieved in the BPA and DFW ozone nonattainment areas, and the 95-county central and eastern Texas region.

The proposed revisions to the LED rules will require LED fuel statewide for on-road use. In addition, the proposed revisions to the LED rules will require LED fuel for both on-road and non-road use in the eight counties in the HGA ozone nonattainment area which includes Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties; the four counties of the DFW ozone nonattainment area which includes Collin, Dallas, Denton, and Tarrant Counties; the three counties of the BPA ozone nonattainment area which includes Hardin, Jefferson, and Orange Counties; and 95 additional central and eastern Texas counties including Anderson, Angelina, Aransas, Atascosa, Austin, Bastrop, Bee, Bell, Bexar, Bosque, Bowie, Brazos, Burleson, Caldwell, Calhoun, Camp, Cass, Cherokee, Colorado, Comal, Cooke, Coryell, De Witt, Delta, Ellis, Falls, Fannin, Fayette, Franklin, Freestone, Goliad, Gonzales, Grayson, Gregg, Grimes, Guadalupe, Harrison, Hays, Henderson, Hill, Hood, Hopkins, Houston, Hunt, Jackson, Jasper, Johnson, Karnes, Kaufman, Lamar, Lavaca, Lee, Leon, Limestone, Live Oak, Madison, Marion, Matagorda, McLennan, Milam, Morris, Nacogdoches, Navarro, Newton, Nueces, Panola, Parker, Polk, Rains, Red River, Refugio, Robertson, Rockwall, Rusk, Sabine, San Jacinto, San Patricio, San Augustine, Shelby, Smith, Somervell, Titus, Travis, Trinity, Tyler, Upshur, Van Zandt, Victoria, Walker, Washington, Wharton, Williamson, Wilson, Wise, and Wood Counties.

The LED fuel will lower the emissions of NO_x and other pollutants from fuel combustion. Because NO_x is a precursor to ground-level ozone formation, reduced emissions of NO_x will result in ground-level ozone reductions. To comply with the state LED regulations, diesel fuel producers and importers must ensure that diesel fuel distributed to the LED fuel zone meets the specifications stated in these proposed rules. The proposed rules require that, beginning May 1, 2002, diesel fuel produced for delivery and ultimate sale to the consumer in the affected area does not exceed 500 ppm sulfur, must contain less than 10% by volume of aromatic hydrocarbons, and must have a cetane number of 48 or greater. In addition, the proposed rules will require the sulfur content in the diesel fuel supplied to the DFW, BPA, and HGA ozone nonattainment areas and 95 central and eastern Texas counties, be reduced to 30 ppm sulfur beginning May 1, 2004, and reduced again beginning May 1, 2006, to 15 ppm sulfur. Also, the proposed rules require diesel fuel producers and importers who provide fuel to the affected areas to register with the commission and provide quarterly status reports.

The proposed rules will also revise definitions that will impact who is affected by the proposed state LED fuel program as well as who is impacted by the current requirements of the regional low Reid vapor pressure (RVP) gasoline program, specified in §§114.301, 114.304 - 114.307, and 114.309. The proposed rules will restrict the registration, reporting, and testing requirements of these programs to those persons who have direct control over changes in fuel content, i.e., those persons who produce fuel or import fuel into the state.

The commission is aware that the EPA is currently proposing revised nationwide diesel fuel sulfur controls. If a new federal diesel fuel sulfur rule is adopted that covers the areas in Texas impacted by

this rule, and the federal rule is at least as stringent as these rules, then the commission may consider compliance with the national rule equally effective and may repeal the state sulfur requirements for diesel fuel.

The commission is proposing to expand the LED fuel ozone control strategy which was developed for the DFW area and requires diesel fuel content limits more restrictive than federal diesel fuel regulations. The current federal regulations governing diesel fuel quality in Title 40 Code of Federal Regulations (40 CFR) Part 80, Regulation of Fuels and Fuel Additives, §80.29, Controls and Prohibitions on Diesel Fuel Quality, establish limits for fuel content for diesel fuel used in on-road motor vehicle applications. These federal regulations limit sulfur in on-road diesel fuel to 500 ppm and allow the producer to choose between meeting a minimum cetane number of 40 or a maximum aromatic hydrocarbon content of 35% by volume. The state's proposed LED regulations limit on-road diesel to 500 ppm sulfur, 10% aromatic hydrocarbons, and a 48 cetane minimum, and with a more restrictive limit on sulfur being implemented on-road and non-road in the HGA, DFW, BPA ozone nonattainment areas and 95 central and eastern Texas counties in 2004 and then again in 2006. However, although the EPA regulates diesel fuel content for on-road use, it does not regulate the fuel content for non-road diesel fuel. Therefore, since there is currently no federal limit on the content of non-road diesel, the state has the authority to place controls on the fuel content of non-road diesel fuel. As such, the commission is submitting, as part of the SIP, concurrent with this proposed rulemaking, a request for a waiver in accordance with the 42 USC, §7545(C)(4)(c), for the on-road portion of these rules. The commission does not believe that a waiver is needed for the non-road portion of these rules. This proposed SIP submittal is available to the public by contacting Heather Evans at (512) 239-1970.

Modeling performed for the commission assessing the benefits of this NO_x emission reduction strategy demonstrated that significant emission reductions could be achieved from using a low aromatic hydrocarbon/high cetane diesel fuel as specified by the commission's LED fuel requirements. By the year 2007, the proposed LED fuel program will reduce NO_x emissions from on-road vehicles and non-road equipment statewide by 30 tpd, of which 6.84 tpd of reductions will be achieved in the HGA ozone nonattainment area. The commission anticipates production cost will increase from $.04 to $.08 per gallon of diesel fuel to comply with rules.

The commission developed this NO_x emission control strategy to cover the eight counties contained in the HGA ozone nonattainment area. The coverage area also includes all counties in the state for on-road diesel fuel use and the four DFW ozone nonattainment counties, the three BPA ozone nonattainment counties, as well as 95 central and eastern Texas counties for both on-road and non-road diesel fuel use. The involvement of the statewide counties as part of the NO_x emission control strategy is necessary for the HGA and DFW areas to demonstrate attainment of the ozone NAAQS. The proposed rules are intended to help bring the ozone nonattainment areas into compliance and to help keep attainment and near nonattainment areas from going into nonattainment. The proposed statewide coverage will also provide a greater market for diesel fuel producers and importers to provide the fuel required by these regulations and should help alleviate concerns regarding out of area refueling practices.

The commission solicits comment regarding the possible benefits of reducing sulfur content to 15 ppm prior to the 2006 federal deadline as a possible alternative to controls on aromatics and cetane as described in this proposal.

The commission solicits comment on additional flexibilities relating to rule content and implementation which have not been addressed in this or other concurrent rulemakings. These flexibilities may be available for both mobile and stationary sources. Additional flexibilities may also be achieved through innovative and/or emerging technology which may become available in the future. Additional sources of funds for incentive programs may become available to substitute for some of the measures considered here.

SECTION BY SECTION DISCUSSION

The proposed amendments to §114.6 contain revisions to the following definitions: bulk plant, imported, import facility, and importer. The proposed amendment to the definition of bulk plant is needed for clarification of the definition and will insert the word "fuel" that was inadvertently left out of the original rulemaking. The phrase "solely by truck" is also proposed to be amended to "by truck or pipeline" to account for those bulk plants that have pipeline delivery. The proposed amendments to the definitions of imported, import facility, and importer are necessary to clarify that only those persons who import fuel into the state are covered by these definitions. These proposed amendments will impact who is affected by the current requirements of the regional RVP gasoline program, specified in §§114.301, 114.304 - 114.307, and 114.309, as well as the proposed amendments to the LED fuel program and will restrict the registration, reporting, and testing requirements of these programs to those

persons who have direct control over changes in fuel content, i.e., those persons who produce fuel or import fuel into the state. In addition, the proposed amendments to §114.6 contain new definitions for motor vehicle and non-road equipment. Also, as a result of the new definitions, the other existing definitions are to be renumbered accordingly.

The proposed amendments to §114.312 revise subsection (b) to modify the sulfur content standard for diesel fuel to provide for the phase down of sulfur content in certain affected areas from 500 ppm to 30 ppm and then again to 15 ppm. In addition, the proposed amendments to §114.312 revise subsection (g) to provide reference to the testing methods prescribed in the proposed amendments to §114.315.

The proposed amendments to §114.313 clarify the language of subsection (c) by adding commas in two locations.

The proposed amendments to §114.314 clarify language by adding the word “fuel” after the phrase “low emission diesel (LED).” The proposed amendments also change the word “chapter” to “division” to clarify that LED producers and importers shall comply with the requirements of the subchapter division regarding LED.

The proposed amendments to §114.315 revise subsection (a) to establish the American Society for Testing and Materials (ASTM) Test Method D287-92(1995) as the approved test method for determining the American Petroleum Institute (API) gravity, ASTM Test Method D445-97 as the approved test method for determining viscosity, ASTM Test Method D93-99c as the approved test

method for determining the flash point, and ASTM Test Method D86-00 as the approved test method for determining the distillation temperatures of the diesel fuel. The proposed amendments to §114.315 also contain a new subsection (c) which establishes the test procedures and approval process for obtaining the executive director's approval of an alternative diesel fuel formulation.

The proposed amendments to §114.316 revise subsection (e) to require the California Air Resources Board (CARB) executive order number, or the approval notification number as issued by the executive director, to be included on the product transfer documents if the diesel fuel being transferred complies with one of those alternatives.

The proposed amendments to §114.319 contain a new subsection (a) which establishes the compliance date for statewide coverage of the LED program for on-road diesel fuel use, a new subsection (b) which establishes the compliance date and coverage area for the use of LED for both on-road and non-road use, a new subsection (c) which establishes the compliance date and coverage area for the sulfur content phase down to 30 ppm sulfur, and a new subsection (d) which establishes the compliance date and coverage area for the sulfur content phase down to 15 ppm sulfur.

FISCAL NOTE: COSTS TO STATE AND LOCAL GOVERNMENT

John Davis, Technical Specialist with Strategic Planning and Appropriations, determined that for the first five-year period the proposed amendments are in effect there will be fiscal implications which are not anticipated to be significant for any single unit of state and local government as a result of administration or enforcement of the proposed amendments. The total annual fiscal impact to statewide

state and local government diesel vehicles is estimated to be approximately $177 per year per diesel vehicle following implementation of LED fuel standards on May 1, 2002 and an additional $177 per year per diesel vehicle in the DFW, BPA, and HGA ozone nonattainment areas and 95 additional central and eastern Texas counties, following the beginning of a desulfurization phase in period which requires the sulfur level per gallon of gasoline to be reduced from 30 ppm (May 1, 2004) to 15 ppm (May 1, 2006).

The proposed amendments to the current LED fuel rule will require LED fuel statewide for on-road use. In addition, the proposed amendments will require LED fuel for both on-road and non-road use in the eight-county HGA, four-county DFW, and three-county BPA nonattainment areas along with 95 additional counties in central and eastern Texas.

The HGA ozone nonattainment area consists of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties; the DFW ozone nonattainment area consists of Collin, Dallas, Denton, and Tarrant Counties; the BPA ozone nonattainment area consists of Hardin, Jefferson, and Orange Counties; and the 95 additional central and eastern Texas counties are Anderson, Angelina, Aransas, Atascosa, Austin, Bastrop, Bee, Bell, Bexar, Bosque, Bowie, Brazos, Burleson, Caldwell, Calhoun, Camp, Cass, Cherokee, Colorado, Comal, Cooke, Coryell, De Witt, Delta, Ellis, Falls, Fannin, Fayette, Franklin, Freestone, Goliad, Gonzales, Grayson, Gregg, Grimes, Guadalupe, Harrison, Hays, Henderson, Hill, Hood, Hopkins, Houston, Hunt, Jackson, Jasper, Johnson, Karnes, Kaufman, Lamar, Lavaca, Lee, Leon, Limestone, Live Oak, Madison, Marion, Matagorda, McLennan, Milam, Morris, Nacogdoches, Navarro, Newton, Nueces, Panola, Parker, Polk, Rains,

Red River, Refugio, Robertson, Rockwall, Rusk, Sabine, San Jacinto, San Patricio, San Augustine, Shelby, Smith, Somervell, Titus, Travis, Trinity, Tyler, Upshur, Van Zandt, Victoria, Walker, Washington, Wharton, Williamson, Wilson, Wise, and Wood Counties.

In order to comply with the proposed amendments, beginning May 1, 2002, diesel fuel producers and importers must ensure diesel fuel distributed to affected areas shall not exceed 500 ppm sulfur, must contain less than 10% by volume of aromatic hydrocarbons, and must have a cetane number of 48 or greater. Additionally, the proposed amendments will require the sulfur content in the diesel fuel supplied to the DFW, BPA, and HGA nonattainment areas and 95 additional central and eastern Texas counties be reduced to 30 ppm sulfur beginning May 1, 2004, and reduced again beginning May 1, 2006, to 15 ppm.

It is anticipated that the cost of producing diesel fuel to the May 1, 2002 standard will result in an estimated increase, in the cost for this fuel at the pump, of $.04. Additionally, it is anticipated that owners and operators of diesel fueled vehicles in counties affected by the May 1, 2006 standard will have to pay an additional $.04 increase in diesel fuel prices, beginning May 1, 2004, when the phase in period to desulfurize diesel from 30 ppm to 15 ppm sulfur content per gallon of diesel begins. The increase in fuel cost for the May 1, 2002 standard was calculated in an analysis published by Northeast States for Coordinated Air Use Management (NESCAUM) comparing the cost of California diesel fuel to federal diesel. Federal diesel is the term used for diesel fuel which meets federal standards and is used to fuel diesel-powered, compression-ignition engines in on-road applications. The increase in fuel cost for the May 1, 2006 standard is based on the EPA's “Notice of Proposed Rulemaking on the

Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements." In addition, the proposed amendments will require diesel fuel producers and importers who provide fuel to the affected areas to register with the commission, test their fuel for compliance, and provide quarterly status reports to the commission.

The following analysis in this fiscal note only considers on-road diesel vehicles. Vehicle counts for non-road diesel vehicles are not available.

Statewide units of state and local government will likely be required to pay an additional $.04 per gallon for diesel fuel that meets the proposed LED requirements following the May 1, 2002 deadline. Approximately 12,261 state and local government diesel vehicles statewide consumed approximately 54 million gallons of diesel fuel in 1999. Based on a 1.5% growth rate, an estimated 12,821 diesel vehicles would use approximately 57 million gallons of on-road diesel fuel in 2002. The total annual fiscal impact to units of state and local governments in 2002 would be approximately $1.5 million or approximately $117 per diesel vehicle for 2002 (May - December 2002) and then approximately $2.3 million or approximately $177 per year per diesel vehicle afterward.

Beginning May 1, 2004, a desulfurization phase in period will begin, which will eventually result in the reduction of sulfur content per gallon of diesel from 30 ppm (May 1, 2004) to 15 ppm (May 1, 2006). All diesel gas sold in the affected counties will have to meet the 15 ppm requirement by May 1, 2006. Units of state and local government in the affected counties will likely be required to pay an additional $.04 per gallon, for a total increase of $.08 beginning May 1, 2004, for diesel fuel that meets the

stricter proposed LED requirements. It is anticipated there will be approximately 9,600 state and local government diesel vehicles operating in the affected areas by May 1, 2004. The additional fiscal impact for units of state and local government vehicles operating in the affected counties in 2004 will be approximately $1.1 million or approximately $117 per diesel vehicle for 2004 (May - December 2004) and then approximately $1.7 million or approximately $177 per diesel vehicle per year afterward. The combined annual cost increase to units of state and local governments which own or operate diesel vehicles in the affected areas, for the first full years following implementation of fuel standards associated with the May 1, 2002 and May 1, 2004 - 2006 phase-in period, is approximately $3.3 million or approximately $354 per diesel vehicle per year.

PUBLIC BENEFIT AND COSTS

Mr. Davis also determined that for the first five years the proposed amendments are in effect, the public benefit anticipated from enforcement of and compliance with the proposed amendments will be the potential reduction of on-road and non-road mobile source emissions, potentially improved air quality, and contribution toward demonstration of attainment with the NAAQS for the HGA ozone nonattainment areas. However, additional benefits will be achieved in the BPA and DFW ozone nonattainment areas, and the 95-county central and eastern Texas region.

There are fiscal implications which are not anticipated to be significant for any single owner or operator of diesel equipment as a result of administration or enforcement of the proposed amendments. It is anticipated that LED diesel fuel producers that supply fuel to the affected counties will incur additional costs to produce diesel fuel that meets the proposed May 1, 2002 LED standards. The cost of

producing this LED fuel is estimated to be approximately $.04 per gallon more than for diesel fuel. Additionally, it is anticipated that owners and operators of diesel fueled vehicles in counties affected by the May 1, 2006 standard will be faced with an additional $.04 increase in diesel fuel prices, beginning May 1, 2004, when the phase in period to desulfurize diesel from 30 ppm to 15 ppm sulfur content per gallon of diesel begins.

The commission estimates that approximately 565,661 privately owned and operated diesel vehicles statewide consumed approximately 2.5 billion gallons of on-road diesel fuel in 1999. Based on a 1.5% growth rate, an estimated 591,499 privately owned and operated diesel vehicles would use approximately 2.6 billion gallons of on-road diesel fuel in 2002. The total fiscal impact to persons and businesses which own and operate diesel vehicles statewide in 2002 would be approximately $69 million or approximately $117 per diesel vehicle for 2002 (May - December 2002) and then approximately $105 million or approximately $177 per year per diesel vehicle afterward.

Beginning May 1, 2004, a desulfurization phase in period will begin, which will eventually result in the reduction of sulfur content per gallon of diesel from 30 ppm (May 1, 2004) to 15 ppm (May 1, 2006). All diesel gas sold in the affected counties will have to meet the 15 ppm requirement by May 1, 2006. Persons and businesses that own and operate diesel vehicles in the affected counties will likely be required to pay an additional $.04 per gallon, for a total increase of $.08 beginning May 1, 2004, for diesel fuel that meets the stricter proposed LED requirements. The commission anticipates there will be approximately 441,380 privately-owned diesel vehicles operating in the affected counties by May 1, 2004. The additional fiscal impact for persons and businesses that own and operate diesel vehicles

operating in the affected counties in 2004 will be approximately $51 million or approximately $117 per diesel vehicle for 2004 (May - December 2004) and then approximately $78 million or approximately $177 per diesel vehicle per year afterward. The combined annual cost increase to persons and businesses which own or operate diesel vehicles in the affected counties, for the first full years following implementation of fuel standards associated with the May 1, 2002 and May 1, 2004 - 2006 phase in period, is approximately $153 million or approximately $354 per diesel vehicle per year.

There will be significant capital and operating costs to refineries to meet the proposed May 1, 2006 standard. According to EPA analysis found in the "Notice of Proposed Rulemaking on the Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements," the estimated capital costs for a typical refinery will be approximately $31 million and the average annual operating cost would be approximately $8 million. These increased costs will result in an anticipated $.04 per gallon increase in diesel fuel for consumers beginning May 1, 2004. There are no anticipated significant additional costs for diesel fuel producers and importers associated with registering with the commission or supplying monthly status reports. Likewise, there are no anticipated additional costs to producers for testing LED fuel because producers are already testing their fuel for compliance with federal regulations and industry standards.

SMALL AND MICRO-BUSINESS ASSESSMENT

There will be fiscal implications which are not anticipated to have an adverse impact on any small or micro-businesses as a result of administration or enforcement of the proposed amendments. There are no known diesel fuel producers or importers that would be considered small or micro-businesses.

However, it is anticipated that many independent retailers of diesel fuel statewide are small or micro-businesses. Therefore, production costs of approximately $.04 per gallon for each standard (May 1, 2002 and May 1, 2004 - 2006) are not anticipated to affect small or micro-businesses except for passing increased costs of production through to consumers. The fiscal implications for small and micro-businesses would include additional costs of approximately $.04 per gallon for LED starting May 1, 2002 and then an additional $.04 per gallon for lower sulfur content diesel in counties affected by the May 1, 2004 - 2006 phase-in period standard. The additional costs would depend on the amount of fuel used by the business. On an average basis, the annual cost to businesses would be approximately $177 per diesel vehicle per year statewide and an additional $177 per diesel vehicle per year in the counties affected by the May 1, 2004 - 2006 phase-in period standard.

DRAFT REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the proposed rulemaking is subject to §2001.0225 because it could meet the definition of a "major environmental rule" as defined in that statute. "Major environmental rule" means a rule, the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The amendments to Chapter 114 are intended to protect the environment or reduce risks to human health from environmental exposure to ozone and could affect in a material way, a sector of the economy, competition, and the environment due to its impact on the fuel manufacturing and distribution network

of the state. The amendments are intended to implement an LED air pollution control program as part of the strategy to reduce emissions of NO_x necessary for the counties included in the HGA ozone nonattainment area to be able to demonstrate attainment with the ozone NAAQS. Although the proposed amendments could meet the definition of a "major environmental rule" as defined in the Texas Government Code, §2001.0225 only applies to a major environmental rule, the result of which is to: 1.) exceed a standard set by federal law, unless the rule is specifically required by state law; 2.) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3.) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4.) adopt a rule solely under the general powers of the agency instead of under a specific state law.

This proposed rulemaking action does not meet any of these four applicability requirements. Specifically, the LED fuel requirements within these proposed rules were developed in order to meet the ozone NAAQS set by the EPA under 42 USC, §7409, and therefore meet a federal requirement. Provisions of 42 USC, §7410, require states to adopt a SIP which provides for "implementation, maintenance, and enforcement" of the primary NAAQS in each air quality control region of the state. While §7410 does not require specific programs, methods, or reductions in order to meet the standard, state SIPs must include "enforceable emission limitations and other control measures, means or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this chapter," (meaning Chapter 85, Air Pollution Prevention and Control). It is true that 42 USC does require some specific measures for SIP purposes, like the

inspection and maintenance program, but those programs are the exception, not the rule, in the SIP structure of 42 USC. The provisions of 42 USC recognize that states are in the best position to determine what programs and controls are necessary or appropriate in order to meet the NAAQS. This flexibility allows states, affected industry, and the public, to collaborate on the best methods for attaining the NAAQS for the specific regions in the state. Even though 42 USC allows states to develop their own programs, this flexibility does not relieve a state from developing a program that meets the requirements of §7410. Thus, while specific measures are not generally required, the emission reductions are required. States are not free to ignore the requirements of §7410 and must develop programs to assure that the nonattainment areas of the state will be brought into attainment on schedule.

The requirement to provide a fiscal analysis of proposed regulations in the Texas Government Code was amended by Senate Bill 633 (SB 633) during the 75th Legislative Session, 1999. The intent of SB 633 was to require agencies to conduct a regulartory impact analysis (RIA) of extraordinary rules. These are identified in the statutory language as major environmental rules that will have a material adverse impact and will exceed a requirement of state law, federal law, or a delegated federal program, or are adopted solely under the general powers of the agency. With the understanding that this requirement would seldom apply, the commission provided a cost estimate for SB 633 that concluded "based on an assessment of rules adopted by the agency in the past, it is not anticipated that the bill will have significant fiscal implications for the agency due to its limited application." The commission also noted that the number of rules that would require assessment under the provisions of the bill was not large. This conclusion was based, in part, on the criteria set forth in the bill that exempted proposed rules

from the full analysis unless the rule was a major environmental rule that exceeds a federal law. As previously discussed, 42 USC does not require specific programs, methods, or reductions in order to meet the NAAQS; thus, states must develop programs for each nonattainment area to ensure that area will meet the attainment deadlines. Because of the ongoing need to address nonattainment issues, the commission routinely proposes and adopts SIP rules. The legislature is presumed to understand this federal scheme. If each rule proposed for inclusion in the SIP was considered to be a major environmental rule that exceeds federal law, then every SIP rule would require the full RIA contemplated by SB 633. This conclusion is inconsistent with the conclusions reached by the commission in its cost estimate and by the Legislative Budget Board (LBB) in its fiscal notes. Since the legislature is presumed to understand the fiscal impacts of the bills it passes, and that presumption is based on information provided by state agencies and the LBB, the commission believes that the intent of SB 633 was only to require the full RIA for rules that are extraordinary in nature. While the SIP rules will have a broad impact, that impact is no greater than is necessary or appropriate to meet the requirements of the FCAA. For these reasons, rules proposed for inclusion in the SIP fall under the exception in Texas Government Code, §2001.0225(a), because they are required by federal law. The commission performed photochemical grid modeling which predicts that NO_x emission reductions, such as those required by these rules, will result in reductions in ozone formation in the HGA ozone nonattainment area. This rulemaking does not exceed an express requirement of state law. This rulemaking is intended to obtain NO_x emission reductions which will result in reductions in ozone formation in the HGA ozone nonattainment area and help bring HGA into compliance with the air quality standards established under federal law as NAAQS for ozone. The rulemaking does not exceed a standard set by federal law, exceed an express requirement of state law (unless specifically required

by federal law), or exceed a requirement of a delegation agreement. The rulemaking was not developed solely under the general powers of the agency, but was specifically developed to meet the NAAQS established under federal law and authorized under Texas Clean Air Act (TCAA), §§382.011, 382.012, 382.017, 382.019, 382.037(g), and 382.039.

The commission invites public comment on the draft regulatory impact analysis.

TAKINGS IMPACT ASSESSMENT

The commission prepared a takings impact assessment for these proposed rules in accordance with Texas Government Code, §2007.043. The following is a summary of that assessment. The specific purpose of the proposed rulemaking is to establish an LED fuel program which will act as an air pollution control strategy to reduce NO_x emissions necessary for the eight counties included in the HGA ozone nonattainment area to be able to demonstrate attainment with the ozone NAAQS. Promulgation and enforcement of the proposed rules may possibly burden private, real property because this proposed rulemaking action may result in investment in the permanent installation of new refinery processing equipment. Although the proposed rules do not directly prevent a nuisance or prevent an immediate threat to life or property, they do prevent a real and substantial threat to public health and safety, and partially fulfill a federal mandate under 42 USC, §7410. Specifically, the emission limitations and control requirements within this proposal have been developed in order to meet the ozone NAAQS set by the EPA under 42 USC, §7409. States are primarily responsible for ensuring attainment and maintenance of the NAAQS once the EPA has established them. Under 42 USC, §7410 and related provisions, states must submit, for approval by the EPA, SIPs that provide for the attainment and

maintenance of NAAQS through control programs directed to sources of the pollutants involved. Therefore, the purpose of the proposed rules is to implement cleaner burning diesel fuel which is necessary for the HGA ozone nonattainment area to meet the air quality standards established under federal law as NAAQS. Consequently, the exemption which applies to these proposed rules is that of an action reasonably taken to fulfill an obligation mandated by federal law; therefore, these proposed rules do not constitute a takings under the Texas Government Code, Chapter 2007.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission determined that the rulemaking action relates to an action or actions subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 et seq.), and the commission rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with the CMP. As required by 30 TAC §281.45(a)(3) and 31 TAC §505.11(b)(2), relating to actions and rules subject to the CMP, commission rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission reviewed this action for consistency with the CMP goals and policies in accordance with the rules of the Coastal Coordination Council, and determined that the action is consistent with the applicable CMP goals and policies. The CMP goal applicable to this rulemaking action is the goal to protect, preserve, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas (31 TAC §501.12(1)). No new sources of air contaminants will be authorized and NO_x air emissions will be reduced as a result of these rules. The CMP policy applicable to this rulemaking action is the policy that commission rules comply with regulations in 40 CFR, to protect and enhance air quality in the coastal area (31 TAC §501.14(q)). This rulemaking

action complies with 40 CFR 51. Therefore, in compliance with 31 TAC §505.22(e), the commission affirms that this rulemaking action is consistent with CMP goals and policies.

Interested persons may submit comments on the consistency of the proposed rules with the CMP during the public comment period.

ANNOUNCEMENT OF HEARINGS

The commission will hold public hearings on this proposal at the following times and locations: September 18, 2000, 10:00 a.m., Lone Star Convention Center, 9055 Airport Road (FM 1484), Conroe; September 18, 2000, 7:00 p.m., Lake Jackson Civic Center, 333 Highway 332 East, Lake Jackson; September 19, 2000, 10:00 a.m. and 7:00 p.m., George Brown Convention Center, 1001 Avenida de Las Americas, Houston; September 20, 2000, 9:00 a.m., VFW Hall, 6202 George Bush Drive, Katy; September 20, 2000, 6:00 p.m., East Harris County Community Center, 7340 Spencer, Pasadena; September 21, 2000, 10:00 a.m., Southeast Texas Regional Airport Media Room, 6000 Airline Drive, Beaumont; September 21, 2000, 2:00 p.m., Amarillo City Commission Chambers, City Hall, 509 East 7th Avenue, Amarillo; September 21, 2000, 6:00 p.m., Charles T. Doyle Convention Center, 21st Street at Phoenix Lane, Texas City; September 22, 2000, 10:00 a.m., Dayton High School, 2nd Floor Lecture Room, 3200 North Cleveland Street, Dayton; September 22, 2000, 11:00 a.m., El Paso City Council Chambers, 2 Civic Center Plaza, 2nd Floor, El Paso; September 22, 2000, 2:00 p.m., North Central Texas Council of Governments, 2nd Floor Board Room, 616 Six Flags Drive, Suite 200, Arlington; and September 25, 2000, 10:00 a.m., Texas Natural Resource Conservation Commission, 12100 North I-35, Building E, Room 201S, Austin. The hearings are structured for the

receipt of oral or written comments by interested persons. Registration will begin one hour prior to each hearing. Individuals may present oral statements when called upon in order of registration. A four-minute time limit will be established at each hearing to assure that enough time is allowed for every interested person to speak. Open discussion will not occur during each hearing; however, agency staff members will be available to discuss the proposal one hour before each hearing, and will answer questions before and after each hearing.

Persons with disabilities who have special communication or other accommodation needs, who are planning to attend a hearing, should contact the Office of Environmental Policy, Analysis, and Assessment at (512) 239-4900. Requests should be made as far in advance as possible.

SUBMITTAL OF COMMENTS

Written comments may be submitted to Heather Evans, Office of Environmental Policy, Analysis, and Assessment, MC 206, P.O. Box 13087, Austin, Texas 78711-3087; faxed to (512) 239-4808; or emailed to *siprules@tnrcc.state.tx.us*. All comments should reference Rule Log Number 2000-011D-114-AI. Comments must be received by 5:00 p.m., September 25, 2000. For further information, please contact Morris Brown at (512) 239-1438 or Alan Henderson at (512) 239-1510.

STATUTORY AUTHORITY

The amendments are proposed under Texas Water Code (TWC), §5.103, which authorizes the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under the Texas Health and Safety Code, TCAA, §382.017, which authorizes the commission to adopt rules

consistent with the policy and purposes of the TCAA. The amendments are also proposed under TCAA, §382.011, which authorizes the commission to control the quality of the state's air; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.019, which authorizes the commission to adopt rules to control and reduce emissions from engines used to propel land vehicles; §382.037(g), which authorizes the commission to regulate fuel content if it is demonstrated to be necessary for attainment of the NAAQS; and §382.039, which authorizes the commission to develop and implement transportation programs and other measures necessary to demonstrate attainment and protect the public from exposure to hazardous air contaminants from motor vehicles.

The proposed amendments implement TCAA, §382.002, relating to Policy and Purpose; §382.011, relating to General Powers and Duties; §382.012, relating to State Air Control Plan; §382.019, relating to Methods Used to Control and Reduce Emissions from Land Vehicles; §382.037(g), relating to Vehicle Emissions Inspection and Maintenance Program; and §382.039, relating to Attainment Program.

SUBCHAPTER A: DEFINITIONS

§114.6

§114.6. Low Emission Fuel Definitions.

Unless specifically defined in the TCAA or in the rules of the commission, the terms used in this subchapter [by the commission] have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms which are defined by the TCAA, §3.2 of this title (relating to Definitions), and §101.1 of this title (relating to Definitions), the following words and terms, when used in Subchapter H of this chapter (relating to Low Emission Fuels), shall have the following meanings, unless the context clearly indicates otherwise.[:]

(1) - (2) (No change.)

(3) Bulk plant - An intermediate motor vehicle fuel distribution facility where delivery of motor vehicle fuel to and from the facility is solely by truck or pipeline.

(4) - (9) (No change.)

(10) Import [Imported] - The process by which motor vehicle fuel is transported into the State of Texas [counties listed in §114.319 of this title (relating to Affected Counties and Compliance Dates)] via pipeline, tank ship, rail car, tank truck, or trailer.

(11) Import facility - The stationary motor vehicle fuel transfer point wherein the importer takes delivery of imported motor vehicle fuel and from which imported motor vehicle fuel is transferred into the cargo tank truck, pipeline, or other delivery vessel from which the fuel will be delivered to a bulk plant or [the] retail fuel dispensing facility [, at which the fuel will be dispensed into motor vehicles].

(12) Importer - Any person who imports motor vehicle fuel [transports, stores, or causes the transportation or storage of motor vehicle fuel, produced by another person, at any point between any producer's facility and any retail fuel dispensing outlet or bulk purchaser/consumer's facility].

(13) (No change.)

(14) Motor vehicle - Any self-propelled device powered by a gasoline fueled spark-ignition engine or a diesel fueled compression-ignition engine in or by which a person or property is or may be transported, and is required to be registered under Texas Transportation Code (TTC), §502.002, excluding vehicles registered under TTC, §502.006(c).

(15) [(14)] Motor vehicle fuel - Any gasoline or diesel fuel used to power gasoline fueled spark-ignition or diesel fueled compression-ignition engines.

(16) Non-road equipment - Any device powered by a gasoline fueled spark-ignition engine or a diesel fueled compression-ignition engine which is not required to be registered under TTC, §502.002.

(17) [(15)] Produce - Perform the process to convert liquid compounds which are not motor vehicle fuel into motor vehicle fuel, except where a person supplies motor vehicle fuel to a refiner who agrees in writing to further process the motor vehicle fuel at the refiner's refinery and to be treated as a producer of the motor vehicle fuel, only the refiner shall be deemed for all purposes under Subchapter H of this chapter to be the producer of the motor vehicle fuel.

(18) [(16)] Producer - Any person who owns, leases, operates, controls, or supervises a production facility and/or produces motor vehicle fuel.

(19) [(17)] Production facility - A facility at which motor vehicle fuel is produced.

(20) [(18)] Refiner - Any person who owns, leases, operates, controls, or supervises a refinery.

(21) [(19)] Refinery - A facility that manufactures liquid fuels by distilling petroleum.

(22) [(20)] Retail fuel dispensing outlet - Any establishment at which gasoline and/or diesel fuel is sold or offered for sale for use in motor vehicles, and the fuel is directly dispensed into the fuel tanks of the motor vehicles using the fuel.

(23) [(21)] Supply - To provide or transfer fuel to a physically separate facility, vehicle, or transportation system.

SUBCHAPTER H: LOW EMISSION FUELS

DIVISION 2: LOW EMISSION DIESEL

§§114.312 - 114.317, 114.319

STATUTORY AUTHORITY

The amendments are proposed under Texas Water Code (TWC), §5.103, which authorizes the commission to adopt rules necessary to carry out its powers and duties under the TWC; and under the Texas Health and Safety Code, Texas Clean Air Act (TCAA), §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA. The amendments are also proposed under TCAA, §382.011, which authorizes the commission to control the quality of the state's air; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.019, which authorizes the commission to adopt rules to control and reduce emissions from engines used to propel land vehicles; §382.037(g), which authorizes the commission to regulate fuel content if it is demonstrated to be necessary for attainment of the NAAQS; and §382.039, which authorizes the commission to develop and implement transportation programs and other measures necessary to demonstrate attainment and protect the public from exposure to hazardous air contaminants from motor vehicles.

The proposed amendments implement TCAA, §382.002, relating to Policy and Purpose; §382.011, relating to General Powers and Duties; §382.012, relating to State Air Control Plan; §382.019, relating to Methods Used to Control and Reduce Emissions from Land Vehicles; §382.037(g), relating to

Vehicle Emissions Inspection and Maintenance Program; and §382.039, relating to Attainment Program.

§114.312. Low Emission Diesel Standards.

(a) (No change.)

(b) Sulfur content. [The maximum sulfur content of LED is 500 parts per million by weight per gallon.]

(1) The maximum sulfur content of LED shall not exceed 500 parts per million (ppm) by weight per gallon in the counties specified in §114.319(a) and (b) of this title.

(2) The maximum sulfur content of LED shall not exceed 30 ppm by weight per gallon in the counties specified in §114.319(c) of this title.

(3) The maximum sulfur content of LED shall not exceed 15 ppm by weight per gallon in the counties specified in §114.319(d) of this title.

(c) - (f) (No change.)

(g) Alternative diesel fuel formulations which the producer has demonstrated to the satisfaction of the executive director and the EPA, through emissions and performance testing methods prescribed

in §114.315(c) of this title (relating to Approved Test Methods) [programs with supporting data], as achieving comparable or better reductions in emissions of oxides of nitrogen, volatile organic compounds, and particulate matter may be used to satisfy the requirements of subsection (a) of this section. For alternative diesel fuel formulations that incorporate additive systems, the estimated emissions benefits of the alternative diesel fuel formulation may be determined by comparing the [in-use] emissions and performance characteristics of the alternative diesel fuel with the additive system versus the emissions and performance characteristics of a diesel fuel without the additive system, as determined by the testing methods prescribed in §114.315(c) of this title [approved by the executive director]. The commission recognizes that fuel content specifications, additive formulation, and testing technology often include factors that can reasonably be considered proprietary or confidential. Therefore, proprietary or confidential information supplied by the producer for evaluation of an alternative diesel fuel formulation must be identified as such when submitted. Decisions regarding confidentiality will be made subject to the Texas Public Information Act, Texas Government Code, Chapter 552.

§114.313. Designated Alternate Limits.

(a) - (b) (No change.)

(c) Whenever the final blend of a producer or importer includes volumes of diesel fuel the producer or importer has produced or imported, and volumes it has not produced or imported, the producer's or importer's DAL shall apply only to the volume of diesel fuel the producer or importer has

produced or imported. In such a case, the producer or importer shall report to the executive director in accordance with subsection (a)(2) of this section, both the volume of diesel fuel produced or imported and the total volume of the final blend.

§114.314. Registration of Diesel Producers and Importers.

Each producer and importer that sells, offers for sale, supplies, or offers for supply from its production facility or import facility low emission diesel fuel (LED) which may ultimately be used in [to] counties listed in §114.319 of this title (relating to Affected Counties and Compliance Dates) shall register with the executive director by December 1, 2001; or after May 31, 2002, within 30 days after the first date that such person will produce or import LED. Registration shall be on forms prescribed by the executive director and shall include a statement of acceptance of the standards and enforcement provisions of this division [chapter]; and shall include a statement of consent by the registrant that the executive director shall be permitted to collect samples and access documentation and records. The executive director shall maintain a listing of all registered suppliers.

§114.315. Approved Test Methods.

(a) Compliance with the diesel fuel content requirements of §114.312 of this title (relating to Low Emission Diesel Standards) shall be determined by applying the following test methods and procedures, as appropriate.

(1) - (5) (No change.)

(6) The American Petroleum Institute (API) gravity index of LED shall be determined by ASTM Test Method D287-92 (Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method)), dated 1995.

(7) The viscosity of LED shall be determined by ASTM Test Method D445-97 (Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (the Calculation of Dynamic Viscosity)), dated 1997.

(8) The flashpoint of LED shall be determined by ASTM Test Method D93-99c (Standard Test Methods for Flash-Point by Pensky-Martens Closed Cup Tester), dated 1999.

(9) The distillation temperatures of LED shall be determined by ASTM Test Method D86-00 (Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure), dated 2000.

(b) Alternatives to the test methods prescribed in subsection (a) of this section may be used if validated by Title 40 Code of Federal Regulations (CFR), Part 63, Appendix A (related to Test Methods), Method 301 (related to Field Validation of Pollutant Measurement Methods from Various Waste Media), dated December 29, 1992. For the purposes of this subsection, substitute "executive director" in each location that Test Method 301 references "administrator."

(c) The executive director, upon application of any producer or importer, may approve alternative diesel fuel formulations in accordance with the following procedures.

(1) The applicant shall initially submit a proposed test protocol to the executive director, which shall include:

(A) the identity of the entity which will conduct the tests described in paragraph (4) of this subsection;

(B) test procedures consistent with the requirements of paragraphs (2) and (4) of this subsection;

(C) test data showing that the candidate fuel meets the specifications for Number 1-D or 2-D diesel fuel as specified in ASTM D975-98b (Standard Specification for Diesel Fuel Oils), dated 1998, and identifying the characteristics of the candidate fuel identified in paragraph (2) of this subsection;

(D) test data showing that the fuel to be used as the reference fuel satisfies the specifications identified in paragraph (3) of this subsection;

(E) reasonable quality assurance and quality control procedures; and

(F) notification of any outlier identification and exclusion procedure that will be used, and a demonstration that any such procedure meets generally accepted statistical principles. The tests shall not be conducted until the protocol is approved by the executive director. Upon completion of the tests, the applicant may submit an application for certification to the executive director. The application shall include the approved test protocol, all of the test data, a copy of the complete test log prepared in accordance with paragraph (4)(D) of this subsection, a demonstration that the candidate fuel meets the requirements for certification specified in this subsection, and other information as the executive director may reasonably require. Upon review of the certification application, the executive director shall grant or deny the application. Any denial shall be accompanied by a written statement of the reasons for denial.

(2) The applicant shall supply the candidate fuel to be used in the comparative testing in accordance with subsection paragraph (4) of this subsection.

(A) The sulfur content, total aromatic hydrocarbon content, polycyclic aromatic hydrocarbon, nitrogen content, and cetane number of the candidate fuel shall be determined as the average of three tests conducted in accordance with the referenced test method specified in subsection (a) of this section.

(B) The identity and concentration of each additive in the candidate fuel shall be determined by a test method specified by the applicant and approved by the executive director to adequately determine the presence and concentration of the additive.

(C) The applicant may also specify any other parameters for the candidate fuel, along with the test method for determining the parameters. The applicant shall provide the chemical composition of each additive in the candidate fuel, except that if the chemical composition of an additive is not known to either the applicant or to the manufacturer of the additive (if other), the applicant may provide a full disclosure of the chemical process of manufacture of the additive in lieu of its chemical composition.

(3) The reference fuel used in the comparative testing described in paragraph (4) of this subsection shall be produced from straight-run diesel fuel by a hydrodearomatization process and shall have the following characteristics determined in accordance with the referenced test method specified in subsection (a) of this section:

(A) sulfur content - as specified in §114.312(b) of this title;

(B) total aromatic hydrocarbon content - 10% maximum, volume percent;

(C) polycyclic aromatic hydrocarbon content - 1.4%, maximum weight percent;

(D) nitrogen content - ten parts per million, maximum;

(E) cetane number - 48, minimum;

(F) API gravity index - 33 to 39 degrees;

(G) viscosity at 40 degrees Celsius - 2.0 to 4.1 centistokes;

(H) flash point - 130 degrees Fahrenheit, minimum; and

(I) distillation:

(i) initial boiling point - 340 to 420 degrees Fahrenheit;

(ii) 10% point - 400 to 490 degrees Fahrenheit;

(iii) 50% point - 470 to 560 degrees Fahrenheit;

(iv) 90% point - 550 to 610 degrees Fahrenheit; and

(v) end point - 580 to 660 degrees Fahrenheit.

(4) Exhaust emission tests using the candidate fuel and the reference fuel specified in paragraph (3) of this subsection shall be conducted in accordance with the federal test procedures as specified in Title 40 CFR, Part 86 (Control of Emissions from New and in-Use Highway Vehicles and

Engines), Subpart N (Emission Regulations for New Otto-Cycle and Diesel Heavy-Duty Engines - Gaseous and Particulate Exhaust Test Procedures), dated 1998.

(A) The tests shall be performed using a Detroit Diesel Corporation Series-60 engine or an engine specified by the applicant and approved by the executive director to be equally representative of the post-1990 model year heavy-duty diesel engine fleet.

(B) The comparative testing shall be conducted by a third-party or third-parties that are mutually agreed upon by the executive director and the applicant. The applicant shall be responsible for all costs of the comparative testing.

(C) The applicant shall conduct a minimum of five exhaust emission tests on the engine with each fuel, using either of the following sequences, where "R" is the reference fuel and "C" is the candidate fuel:

(i) RC, RC, RC, RC, RC (and continuing in the same order); or

(ii) RC, CR, RC, CR, RC (and continuing in the same order).

(D) The applicant shall submit a test schedule to the executive director at least one week prior to commencement of the tests. The test schedule shall identify the days on which the tests will be conducted, and shall provide for conducting the test consecutively without substantial interruptions other than those resulting from the normal hours of operations at the test facility. The

executive director or his designee shall be permitted to observe any tests. The party conducting the testing shall maintain a test log which identifies all tests conducted, all engine mapping procedures, all physical modifications to or operational tests of the engine, all re-calibrations or other changes to the test instruments, and all interruptions between tests and the reason for each such interruption. The party conducting the tests or the applicant shall notify the executive director by telephone and in writing of any unscheduled interruption resulting in a test delay of 48 hours or more, and of the reason for such delay. Prior to restarting the test, the applicant or person conducting the tests shall provide the executive director with a revised schedule for the remaining tests. All tests conducted in accordance with the test schedule, other than any tests rejected in accordance with an outlier identification and exclusion procedure included in the approved test protocol, shall be included in the comparison of emissions in accordance with paragraph (5) of this subsection.

(E) In each test of a fuel, exhaust emissions of oxides of nitrogen (NO_x), volatile organic compounds (VOC), and particulate matter (PM) shall be measured.

(5) The average emissions during testing with the candidate fuel shall be compared to the average emissions during testing with the reference fuel specified in paragraph (3) of this subsection, applying one-sided Student's t statistics as set forth in Snedecar and Cochran, *Statistical Methods* (7th edition), page 91, Iowa State University Press, 1980. The executive director shall issue a certification in accordance with this paragraph only if he or she makes all of the following determinations:

(A) the average individual emissions of NO_x, VOC, and PM, respectively, during testing with the candidate fuel do not exceed the average individual emissions of NO_x, VOC, and PM, respectively, during testing with the reference fuel; and

(B) use of any additive identified in accordance with paragraph (2)(B) of this subsection in diesel powered engines will not increase emissions of noxious or toxic substances which would not be emitted by such engines operating without the additive.

(6) If the executive director finds that a candidate fuel has been properly tested in accordance with this subsection, and makes the determinations specified in paragraph (5) of this subsection, then the executive director shall issue an approval notification certifying that the alternative diesel fuel formulation represented by the candidate fuel may be used to satisfy the requirements of §114.312(a) of this title. The approval notification shall identify all of the characteristics of the candidate fuel determined in accordance with paragraph (2) of this subsection.

(A) The approval notification shall provide that the approved alternative diesel fuel formulation has the following specifications:

(i) a sulfur content, total aromatic hydrocarbon content, polycyclic aromatic hydrocarbon content, and nitrogen content not exceeding that of the candidate fuel;

(ii) a cetane number not less than that of the candidate fuel; and

(iii) presence of all additives that were contained in the candidate fuel, in a concentration not less than in the candidate fuel.

(B) All such characteristics shall be determined in accordance with the test methods identified in subsection (a) of this section. The approval notification shall assign an identification number to the specific approved alternative diesel fuel formulation.

§114.316. Monitoring, Recordkeeping, and Reporting Requirements.

(a) - (d) (No change.)

(e) All parties in the distribution chain (producer, importer, terminals, pipelines, truckers, rail carriers, and retail fuel dispensing outlets) subject to the provisions of §114.312 of this title must maintain copies or records of product transfer documents for a minimum of two years and shall upon request, make such copies or records available to representatives of the commission, EPA, or local air pollution agency having [have] jurisdiction in the area. The product transfer documents must contain, at a minimum, the following information:

(1) - (5) (No change.)

(6) the location of the diesel fuel at the time of transfer; [and]

(7) the following certification statement: "This product complies with the requirements for low emission diesel fuel specified in Title 30 Texas Administrative Code, §114.312 and may be used in any Texas county requiring the use of low emission diesel fuel in compression-ignition engines."; and

(8) in the case of diesel fuel that was produced under the requirements of §114.312(f) or (g) of this title, the executive order number as issued by the CARB or the approval notification number as issued by the executive director in accordance with §114.315(c)(6) of this title.

(f) - (i) (No change.)

§114.317. Exemptions to Low Emission Diesel Requirements.

(a) (No change.)

(b) Diesel fuel that does not meet the requirements of §114.312 of this title (relating to Low Emission Diesel Standards) is not prohibited from being transferred, placed, stored, and/or held within the affected counties so long as it is not ultimately used:

(1) to power a diesel fueled compression-ignition engine in a motor vehicle in the counties listed in §114.319 of this title; or [the affected counties.]

(2) to power a diesel fueled compression-ignition engine in non-road equipment in the counties listed in §114.319(b) of this title.

§114.319. Affected Counties and Compliance Dates.

(a) Beginning May 1, 2002, affected persons in all [the following] counties of Texas shall be in compliance with §§114.312 - 114.317 of this title (relating to Low Emission Diesel Standards; Designated Alternate [Alternative] Limits; Registration of Diesel Producers and Importers; Approved Test Methods; Monitoring, Recordkeeping, and Reporting Requirements; and Exemptions to Low Emission Diesel Requirements) for that diesel fuel which may ultimately be used to power a diesel fueled compression-ignition engine in a motor vehicle [: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant].

(b) Beginning May 1, 2002, affected persons in the following counties shall be in compliance with §§114.312 - 114.317 of this title for that diesel fuel which may ultimately be used to power a diesel fueled compression-ignition engine in a motor vehicle or in non-road equipment:

(1) Collin, Dallas, Denton, and Tarrant;

(2) Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller;

(3) Hardin, Jefferson, and Orange; and

(4) Anderson, Angelina, Aransas, Atascosa, Austin, Bastrop, Bee, Bell, Bexar, Bosque, Bowie, Brazos, Burleson, Caldwell, Calhoun, Camp, Cass, Cherokee, Colorado, Comal, Cooke, Coryell, De Witt, Delta, Ellis, Falls, Fannin, Fayette, Franklin, Freestone, Goliad, Gonzales, Grayson, Gregg, Grimes, Guadalupe, Harrison, Hays, Henderson, Hill, Hood, Hopkins, Houston, Hunt, Jackson, Jasper, Johnson, Karnes, Kaufman, Lamar, Lavaca, Lee, Leon, Limestone, Live Oak, Madison, Marion, Matagorda, McLennan, Milam, Morris, Nacogdoches, Navarro, Newton, Nueces, Panola, Parker, Polk, Rains, Red River, Refugio, Robertson, Rockwall, Rusk, Sabine, San Jacinto, San Patricio, San Augustine, Shelby, Smith, Somervell, Titus, Travis, Trinity, Tyler, Upshur, Van Zandt, Victoria, Walker, Washington, Wharton, Williamson, Wilson, Wise, and Wood.

(c) Beginning May 1, 2004, affected persons in the counties listed in subsection (b) of this section shall be in compliance with §114.312(b)(2) of this title for that diesel fuel which may ultimately be used to power a diesel fueled compression-ignition engine in a motor vehicle or in non-road equipment.

(d) Beginning May 1, 2006, affected persons in the counties listed in subsection (b) of this section shall be in compliance with §114.312(b)(3) of this title for that diesel fuel which may ultimately be used to power a diesel fueled compression-ignition engine in a motor vehicle or in non-road equipment.